APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/427,114	10/26/1999	MITSURU OBARA	009683-353	2737

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EXAMINER
MEONSKE, TONIA L

ART UNIT	PAPER NUMBER
2183	

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/427,114	OBARA ET AL.
	Examiner	Art Unit	
	Tonia L. Meonske	2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>11 May 2005</u>.

2a)☐ This action is **FINAL**.　　2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-26</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-26</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claims 7, 10, and 20 are objected to under 37 CFR 1.75(c), as being of improper

dependent form for failing to further limit the subject matter of a previous claim. Applicant is

required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent

form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orimo

et al., U.S. Patent Number 5,630,135 (herein referred to as Orimo) in view of Charles et al., US

Patent 5,790,842 (herein referred to as Charles).

4.   Referring to claim 26, Orimo has taught an image processing device comprising:

a.   a first image processor for executing first image processing in image data (Orimo,

figure 1, column 2, lines 1-25, one of the first processors, column 11, lines 18-21);

b.   a second image processor for executing second image processing on said image

data that was subjected to the first image processing (Orimo, figure 1, column 2, lines 1-

25, second processor, column 11, lines 18-21); and

c.   a memory for storing said image data in association with state information to

represent the processing state of said image data (Orimo, figure 5, column 5, lines 1-12),

wherein

d.   said first and second image processings are asynchronously executed on said

image data by said first and second image processors (Orimo, column 2, lines 9-16,

Where the processors only rely on completion of a processing by the previous processor,

not a clock signal, to determine when to execute the next processing.).

e.   Orimo has not specifically taught said first and second image processors share

said memory. However, Charles has taught image data processors sharing a common

memory. Charles has further taught that having a shared memory eliminates the need for

separate memory devices in multiple processing systems and thus permits a more

efficient and cost effective processing system implementation (Charles, Column 27, lines

53-63). Therefore it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have the first and second image processors of Orimo

share a memory, as taught by Charles, for the desirable purpose of eliminating the need

for separate memory devices for each processor and thus permit a more efficient and cost

effective processing system implementation (Charles, Column 27, lines 53-63).

5.   Claim 25 does not recite limitations above the claimed invention set forth in claim 26 and

is therefore rejected for the same reasons set forth in the rejection of claim 26 above.

6.   Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orimo et al.,

U.S. Patent Number 5,630,135 (herein referred to as Orimo) in view of

http://foldoc.doc.ic.ac.uk/foldoc/foldoc.cgi?query=image (herein referred to as FOLDOC), and

Charles et al., US Patent 5,790,842 (herein referred to as Charles).

7.   Referring to claim 1, Orimo has taught a data processing system comprising:

a.   a plurality of processors for executing a series of different types of processing

functions on data to be processed (Orimo, figure 1, column 2, lines 1-25, a first processor

and a second processor, column 11, lines 18-21) in a prescribed order (Orimo, column 2,

lines 1-25) each processor executing a processing function different from one another

(column 11, lines 18-21) and said data to be processed being image data that consists of a

plurality of pixel data (abstract, column 10, lines 31-36, column 12, lines 60-65, Orimo

has taught an image in a computer, or a digital image. Orimo has not specifically stated

that the digital image consists of a plurality of pixel data. However, FOLDOC supports

that a digital image is composed of a plurality of pixels.) ; and

b.   a memory for storing said data to be processed in association with state

information to represent the processing to be performed next for each pixel data of said

data to be processed (Orimo, figure 5, column 5, lines 1-12), wherein

c.   said processing functions are asynchronously executed on said data to be

processed by said plurality of processors (Orimo, column 2, lines 9-16, Where the

processors only rely on completion of a processing by the previous processor, not a clock

signal, to determine when to execute the next processing.) one processing is executed on

each pixel data by one of the processors at a time (column 2, lines 1-49).

d.   Orimo et al. have not specifically taught that said plurality of processors share

said memory. However, Charles has taught image data processors sharing a common

memory. Charles has further taught that having a shared memory eliminates the need for

separate memory devices in multiple processing systems and thus permits a more

efficient and cost effective processing system implementation (Charles, Column 27, lines

53-63). Therefore it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have the processors of Orimo share a memory, as taught

by Charles, for the desirable purpose of eliminating the need for separate memory devices

for each processor and thus permit a more efficient and cost effective processing system

implementation (Charles, Column 27, lines 53-63). .

8.   Referring to claim 2, Orimo has taught the data processing system according to claim 1,

wherein the plurality of processors each determine if said data to be processed can be processed

based on said state information (Orimo, column 4, lines 4-9, column 5, lines 27-39).

9.   Referring to claim 3, Orimo has taught the data processing system according to claim 2,

wherein the plurality of processors each execute a processing on said data to be processed, and

then rewrite said state information corresponding to the processed data (Orimo, column 7, lines

54-56).

10.   Referring to claim 4, Orimo has taught the data processing system according to claim 1,

further comprising a first controller for controlling said plurality of processors to execute said

series of processing functions based on said state information (Orimo, figure 1, element 100,

column 4, lines 4-9, column 5, lines 27-39, Each processor controls itself to execute the

processings based on state information and each individual control cooperates with the control of

the other processors to provide control for the entire system.).

11.   Referring to claim 5, Orimo has taught the data processing system according to claim 4,

wherein said first controller rewrites said state information corresponding to processed data in

response to the completion of each processing by said plurality of processors (Orimo, figure 1,

element 100, column 7, lines 54-56, Each processor controls itself to rewrite state information

upon completion of each processing and each individual control cooperates with the control of

the other processors to provide control for the entire system.).

12.   Referring to claims 6 and 7, Orimo has taught the data processing system according to

claim 1, further comprising a second controller for determining an attribute of said data to be

processed (Orimo, column 5, lines 39-49), wherein said second controller rewrites said state

information corresponding to said data to be processed in order to change the order of executing

said series of processings if it is determined that said data to be processed has a prescribed

attribute (Orimo, column 8, lines 46-66).

13.   Referring to claim 8, Orimo has taught the data processing system wherein said memory

has one region to store said state information corresponding to a single region where data to be

processed is stored (Orimo, figure 2, elements 201 and 205).

14.   Referring to claim 9, Orimo has taught the data processing system wherein said memory

has one region to store said state information corresponding to a plurality of regions where data

to be processed is stored (Orimo figure 5, elements 3060 and 3063).

15.   Referring to claim 10, Orimo has taught the data processing system wherein said data to

be processed is image data (Orimo, see abstract).

16.   Claims 11-16, and 18-20 do not recite limitations above the claimed invention set forth in

claims 1-6 and 8-10 and are therefore rejected for the same reasons set forth in the rejections of

claims 1-6 and 8-10 above.

17.   Referring to claim 17, Orimo has taught the data processing system according to claim

16, wherein said second control means rewrites said state information corresponding to said data

to be processed in order to remove a part of said series of processing functions, if it is determined

that said data to be processed has a prescribed attribute (Orimo, column 6, lines 16-43, The

process must be removed from the series of processings in order to execute.).

18.   Referring to claim 21, Orimo in Combination with Charles and FOLDOC have taught the

data processing system of claim 1, as described above, and wherein a given data item is stored at

the same location in said memory after each of said plurality of processing functions is

performed on said given data item (Charles, Column 27, lines 53-63).

19.   Referring to claim 22, Orimo in Combination with Charles and FOLDOC have taught the

data processing system of claim 21, as described above, and wherein the state information for

said given data item is stored at the same location in said memory after each of said plurality of

processing functions is performed on said given data item (Charles, Column 27, lines 53-63).

20.   Claims 23 and 24 do not recite limitations above the claimed invention set forth in claims

21 and 22 and are therefore rejected for the same reasons set forth in the rejections of claims 21

and 22 above.

Response to Arguments

21.   Applicant's arguments with respect to claims 1-26 have been considered but are moot in

view of the new ground(s) of rejection.
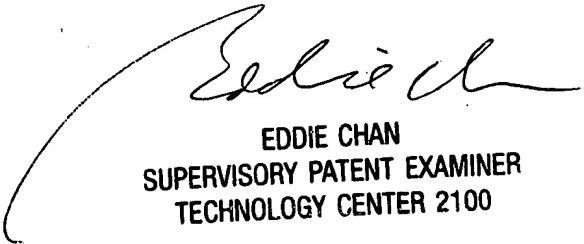
Conclusion

22.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tonia L. Meonske whose telephone number is (571) 272-4170. The examiner can normally be reached on Monday-Friday, 8-4:30.

23.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie P. Chan can be reached on (571) 272-4162. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

24.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tlm

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